RECENTLY PATENTED INVENTIONS.

Agricultural Implements.

PLANTER.—JOHN COLBY, Visalia, Cal. The machine is designed to plant corn and other seed. From a drive-shaft the drop-slides of the seed-boxes are operated. A sprocket-wheel is mounted on the axle adjacent to one of the supporting-wheels. To the sprocket-wheel an arm is secured, projecting beyond the periphery of the supporting-wheel. These arms, as the sprocket-wheel rotates, serve as markers, indicating the position of the hills.

RICE DRIER.—LOUIS W. HASKELL, Savannah, Ga. This rice drying and hardening apparatus consists of a chamber having an air-inlet on one side and an air-outlet on the other side. A series of transverse, apertured partitions is provided, the intermediate ones having an air-passage at their alternate ends. Apertured slides are arranged on all the partitions. Several series of reticulated, independent rice-receptacles have rigid tubular heads by which they are suspended from all the partitions save the lowest. Rigid tubular discharge ends are adjacent to the slides. The receptacles are separated to allow free circulation of heated air around them on all sides. Ricedried by this machine is hardened and, therefore, admirably adapted to milling.

PLANTER.—STEPHEN G. SPARROW, Eminence, Ky. The trip mechanism of this apparatus is operated from one of the ground-wheels. Checks are provided for the ground-wheels, so placed that checking may be accomplished both ways, dispensing with the check-rowing wire and the "automatic stake-setter." The wheel carrying the checks can be elevated and revolved to register with a row when necessary, and also to provide effective devices under the control of the driver to close the furrow and cover the seed, together with means for separating the seed at the time it is delivered to the furrow.

Electrical Apparatus.

SCREW ELECTRIC CONTACT DEVICE.—CHARLES CHEVALIER, St. Quentin (Aisne), and EUGÈNE CADET, Peronne (Somme), France. The invention relates to a new electric contact device based on the employment of a quick-threaded screw connected with the member or members to be used in effecting the desired end. The device is more particularly applicable to military or other shooting-targets, the shots fired at which are automatically marked at a distance.

METAL-DEPOSITING APPARATUS. — HERMANN R BOISSIER, Brooklyn, New York city. At first a comparatively light current is passed into the solution-tank, to prevent a burning-out of the connections for the suspended plates. During the action of the stronger current subsequently employed, agitators are moved up and down, which, by thoroughly stirring the liquid in the tank, breaks up the gases formed on the anode and cathode. By thus destroying the gases, the metal is quickly deposited on the form.

Mechanical Devices.

APPARATUS FOR DYEING SKEIN.—NORBURY L. SMITH, Waterford, N. Y. This invention is an improvement in machines for dyeing yarn in skeins. The machine is of simple construction and has a means for automatically moving the skein into and out of the dye and for causing a rotary movement of the skein while in the dye, thus uniformly dyeing all parts of the material. In order to secure this rotary movement the frame carrying the skeins is driven by gearing, the special arrangement of which constitutes one of the novel features of the patent.

MUSIC-LEAF TURNER.—ROBERT HAMMOND, Caldwell, N. Y. The music-leaf turner is provided with means whereby it can be applied without the aid of screw-clamps or the like and without in the least marring the surface of the part to which such application is made. The mechanism is operated by a touch of the finger. At each touch a sheet-carrying arm is released and a leaf of music turned. Any leaf can be turned back for the purpose of repeating a passage, the reversing mechanism automatically causing the sheet-carrying arm to be locked in initial position until purposely released.

DENTAL-PLUGGER. — ROBERT BLUM, Corpus Christi, Tex. The invention provides an improved dental tool of that class in which the mallet is operated by pulsating or alternately expanding currents of air, as shown in a previous patent secured by the same inventor. The casing of the plugger contains a movable cylinder having connection with the dental tool. A piston-like mallet works within the cylinder so as to strike it and impart movement to the dental tool.

FIRE-ESCAPE. — JAMES O. MILLER and DANIEL AGNEW, Rochester, Ind. The fire-escape has a casing in which a friction-drum is mounted. A flat guide-tube in the casing is adapted to lead the cable to and from the drum. Antifriction rollers are mounted at the upper end of the guide-tube directly adjacent to the drum to press the rope into true engagement with the drum.

STAMP-VENDING MACHINE.—JAMES MACKIRDY, Brooklyn, New York city. The method employed for delivering the stamp is to place the stamps after being sorted, within a box or receptacle, one upon the other. The stamps are removed from the receptacle by means of a suction cylinder provided with a piston inserted within the receptacle until it touches the upper stamp of the pile. The piston is moved upwardly to create a partial vacuum, which will attach the upper stamp to the bottom of the cylinder, whereupon the cylinder is raised and then swung to one side, the stamp being freed by a slight downward movement of the piston.

CANDY-MACHINE.—THOMAS J. JENKINS, Indianapolis, Ind. This invention relates to means for making, forming, spinning, twisting, and cutting stick-candy. The candy batch passes through two hoppers to converging feed-belts. The material is formed by a feeder and sizer and then passes to shaping rollers between guide-plates, and from these rollers through a guide to twisting-rollers.

ACETYLENE-GAS MACHINE.—JOSEPH M. COGHLAN, Sayville, N. Y. The machine comprises a gasometer and a generator-cylinder arranged side by side. The generator-cylinder passes into a water-vessel with which a segmental lever has connection. A larger segmental lever is connected with the first-named lever and with the gasometer-bell, so that the water-vessel is raised by a lowering of the bell. When the gasometer-bell rises by reason of the gas-pressure, the carbid is outof contact with the water; but when the bell falls, more gas is generated. The action is entirely automatic.

SHINGLE-SAWING MACHINE. — JOHN W. SEAVOLT, Lock 53, Washington County, Md. A work-carrying frame is mounted to swing toward and from the saw; and at one side of the saw a gage is mounted to swing. A shifting-lever has a bifurcated upper end into which a pin on the frame passes. The lower end of the shifting-lever engages a cam-shaft provided with a ratchet-wheel. A pawl is carried by the work-carrying frame to engage the ratchet-wheel. The gage is automatically swung so that the shingles are sawed from the block alternately in opposite directions.

DRILLING-MACHINE.—OLIVER E. OAKES, Joplin, Mo. In a framework a driven shaft carrying a friction-wheel is mounted, together with a bull-wheel. A bearing-post is secured on the frame-work between the bull-wheel and the friction-wheel. Spring-supported friction-rollers are connected with the post. The rollers are actuated to drive the bull-wheel from the friction-wheel. It will be observed that no toothed wheels are used, so that danger of grinding off the teeth of operating-wheels by sudden stoppage is avoided.

Railway Appliances.

AUTOMATIC UNCOUPLING DEVICE FOR DRAW-HEADS.—JOHN T. LEE, Butler, N. J. This device is so constructed and arranged, that before the draw-bar is subjected to breaking or wrecking strain, the attachment will so act that the threatened draw-bar will be immediately uncoupled from its mating bar, the attachment serving also to prevent the draw-bar's dropping to the track, if it be dislodged.

Vehicles and Their Accessories.

WAGON-BODY AND END-GATE THEREFOR.—WILLIAM F. MARQUARDT, Dysart, Iowa. Mr. Marquardt's farm-wagon is designed for hauling grain, grass, seed, and the like, and is provided with an improved means for preventing escape and loss of such substance between the bed or bottom, and the sides and end-board. The wagon-body is provided with a sectional end-gate and right-angular metal guard-strips secured interiorly at the junction of sides and ends with the bottom. The portion attached to the hinged end-gate sections are in two parts or sections, one having a horizontal flange of rhomboidal shape and the other flange being an obtuse-angled quadrilateral.

LOCK FOR VEHICLE-WHEELS.—GEORGE BECKER, Manhattan, New York city. The simple mechanism devised by the inventor can be attached to any vehicle. The mechanism is provided with locking-bars which can be made simultaneously to enter the spaces between spokes in corresponding wheels, thus serving to check a runaway team, to lock the wheels in descending steep hills, or to lock the wheels when the vehicle is to be left standing. The locking mechanism is normally held out of engagement with the wheels.

DRIVING AND SPEED-CHANGING MECHANISM FOR MOTOR-VEHICLES. — LOUIS RENAULT, Paris, France. For each change of speed the inventor interposes two gear-wheels entering into engagement tangentially and not laterally. The mechanism is designed in such a manner that, in changing from one speed to another the gear-wheels of the speed previously employed are rendered inoperative and no longer rotate, thereby obviating friction. Backward travel is obtained by interposing in the mechanism corresponding with the lowest speed, an intermediate bevel-pinion. The speed changing mechanism is controlled by friction-gearing operated by means of a pedal, which also serves to actuate the brake. Change of speed is effected by means of a single hand-lever; backward motion is produced by means of a second pedal. Upon the fly-wheel of the friction-gearing is provided an engaging device without teeth, which is driven by wedging balls within a groove. The engaging device is operated by means of a chain and serves to start the motor, the omission of teeth resulting in a diminution of friction and noise.

BRAKE. — HUGH MAGEE, Meadville, Miss. This brake is so constructed that it is out of engagement with the wheels when the vehicle is being drawn ahead, but is immediately placed in position to check the motion of the vehicle the moment the animal or animals are caused to move back or are quickly checked. The action of the brake is automatic to the extent that it is under the control of the draft-animals.

Miscellaneous Inventions.

HORSE-BLANKET.—CHRISTOPHER H. CARLI, Stillwater, Minn. Mr. Carli has devised a means for fastening a blanket in place, so that it will be prevented from being blown off or slipping down around the feet of the animal. The forward end of the blanket has overlapping flaps. Fastening-straps are connected at one end with a surcingle and are adapted to pass over the flaps. Snap-hooks and rings fasten the ends of the straps.

RAILROAD-TICKET. — GEORGE W. CRAIG. Provo City, Utah. This ticket is available for passage between any two of a number of stations, and enables the ticket-agent to make the ticket read via any one of the several lines which lead to the final destination. Hence one form of ticket will suffice where hitherto many forms have been required, thus effecting a considerable saving and affording greater convenience.

CURTAIN-FIXTURE. — CHARLEY B. TITUS and MONTFORD C. MCMAINS, Little River, Kans. The invention is an improvement in curtain-fixtures, and particularly in fixtures which can be attached to the window-sash so that they will raise and lower with the sash. A bracket is employed having an inclined or strut-brace and a top plate bracing the upper end of the strut-brace and provided with a curtain-supporting section having a plate sliding along the strut-brace and arranged at its edges to embrace it.

HOOF-PAD. — MICHAEL HALLANAN, Manhattan, New York city. With the view of further improving the popular hoof-pads introduced by this inventor, his latest patent shows a new feature for giving additional strength and wearing qualities. The improvement consists in corrugations or othersuitable formations on the opposed faces of the rubber cushion and leather backing, so that there is a practical interlock of the two, and all tendency of the cushion to "creep" and become detached is resisted.

PROPELLER-SHAFT BEARING.—JOHN T. SHEPARD, Evansville, Ind. The propeller-shaft is combined with a surrounding tube and springs whereby it is made yielding and spring-seated against longitudinal strain. The construction is designed to prevent wear on the packing.

COMBINATION-TOOL. — WILLIAM E. SEELYE, Brainerd, Minn. This new tool is more especially designed for the use of hunters, explorers, and timber-cruisers. The tool combines a hunting-ax with a knife removable from the ax-handle, so that the knife and the ax can be separately used when desired.

LIFE-PRESERVING FLOAT.—SOLOMON GERMAN, Fork, Baltimore County, Md. The float comprises an inflatable body portion with an opening for a man's waist. A rigid frame, constructed in bow and stern sections is strapped to the body portion. In sockets in the frame, hangers are fitted, which are provided with propellers driven by hand-levers. The life-preserving float is collapsible, so as to be conveniently packed for transportation. When desired, the float can be used in ducking or hunting.

ORE-LEACHING APPARATUS.—JAMES A. FLEMING, Phœnix, Arizona Territory. In leaching ores, the solutions ordinarily employed percolate downwardly through the pulverized ores and carry the gold or other metal out of the ore in solution. The present invention provides improvements in the means for introducing and withdrawing the solution and for compressing the pulp before its discharge.

ORE-LEACHING APPARATUS.—JAMES A. FLEMING, Phœnix, Arizona Territory. This invention seeks to provide means for washing the finished pulp after it passes from the leaching-tank. Broadly, the invention consists of a washing-tank through which the finished pulp, discharged from the leaching-tank, is passed before the final discharge of the pulp. The water in the washing-tank will become a mineralized solution, some of which will come from above with the sifted pulp, and all of which will be compressed from the pulp and thereby saved, as described in the foregoing patent.

SURGICAL APPLIANCE.—CHARLES A. MOBERG and JAMES E. BRADY, Portland, Me. The appliance comprises two oppositely-arranged and inwardly-curved rods. Devices connect the ends of the rods, which devices are composed of two parts hinged together and adapted to lock in extended position. A fabric is secured at its side edges to the rods, the fabric being made of such form that it is stretched when the devices are extended.

HOP-DRIER. — ADOLF WOLF, Silverton, Ore. By means of this apparatus green hops can be more quickly dried than has been hitherto possible. The hops are preserved entire and retain their flavor and appearance. The drier saves time, labor, fuel, and expense and preserves the lupulin. At no time are the hops broken; nor need the hops be turned over, as in the ordinary process of drying.

BOTTLE.—JEAN B. TAUVERON, Bath Beach, Brooklyn, New York city. The valve of this non-refillable bottle consists of two balls, one hollow, constituting a float-valve, and the second, solid, constituting a weight to seat the float. An attempt to fill the inverted bottle by means of a vacuum pump will therefore cause the float to rise and close the neck. A novel mouthpiece is provided which is of such construction that a wire cannot be employed to unseat the valve.

PERPETUAL LEDGER. — CHARLES V. HENKEL, Manhattan, New York city. In this ledger two clamping sections are arranged to move toward and from each other and are provided with pins for holding the pages forming the ledger, which pins are made in sections sliding on one another as the clamping sections move. Ledger-leaves are employed which are freely interchangeable, so that a single binder can be used indefinitely by removing the leaves when they are full of accounts.

GUN-BARREL. — WILLIAM S. EVANS, Leechburg, Penn. The bore of the barrel is provided with turns successively increasing in sharpness from the breech to the muzzle. This increase in the sharpness of the pitch, it is claimed, serves greatly to increase the revolution of the projectile in its passage from the breech to the muzzle. The rifling-cuts throughout the bore are parallel. As the barrel has a choke-bore, the rifling is shallow at the breech, but deeper at the muzzle, thus affording a greater hold upon the bullet where the rifling is given the sharpest turns.

CARBURETING-LAMP.—JOSEPH C. PEDEN, New Albany, Ind. A vapor-pipe has communication with the burner. Above the burner a heating-tube is arranged, supported on the burner-chimney. An air-drum, receiving heat from the heating-tube, has communication with the vapor-pipe. A spreader, supplied with gasolene, extends down in the vapor-pipe. The feed of gasolene is automatically controlled, so that after once igniting the gas in the burner no further attention need be paid to the lamp.

BRICK-KILN. — EDGAR ABER, Jacksonville, Tex. The kiln proper requires no flues or channels beyond certain throats and arches. All the other channels for distributing the heat are formed by the green bricks themselves. The heat is uniformly distributed throughout the entire body to be burned, and as a result the operation is quickly and effectively conducted. Linings protect the kiln-walls from the effects of injurious heat. The path of the heated gases can be changed, so that they will first thoroughly dry the green bricks and then burn them. The entire construction is strong, simple, inexpensive, and efficient.

Designs.

PLATE FOR FOOD-BOILERS.—NELLIE J. KELLY, Victor, N. C. The plate is to be placed in the bottom of a pot for preventing food, except cereals and starch, from scorching when being boiled.

NOTE.—Copies of any of these patents can be furnished by Munn & Co. for ten cents each. Please state the name of the patentee, title of the invention, and date of this paper.

Business and Personal.

Notes & Queries

HINTS TO CORRESPONDENTS.

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References to former articles or answers should give date of paper and page or number of question.

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(7990) R. W. C. writes: Being a constant reader of your paper, I take the liberty to ask a few questions, hoping that you can give me some information on the following subjects: A method to remove animal, vegetable or mineral oil from iron, both cast and malleable. Also a pickle to remove scale from cast and wrought iron to prepare for electro-plating. The iron that I am using is a thin sheet iron bent in a V shape and is heavily oiled, and also has a scale that I have found hard to remove. I would like to get a pickle that will bring it out a clean and brighter surface without having to scratch-brush it. A. Sheet iron that is to be electro-plated should be cleaned free from scale and scoured in the sheet before working. To remove the scale use a bath of muriatic acid 2 parts to 3 parts water, into which dip the work long enough to loosen the scale, then wash with hot water and scour with brush and sand. For fine stamp work, polishing in the sheet is found the most economical method of producing bright surfaces for the electro-plating process. For removing oil and grease, boil the work in strong soda lye, wash in hot water and dip in hot lime water to prevent rusting. Treat cast iron work in the same manner.

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